



CONTINUING EDUCATION (CE) COURSE MATERIAL

Course No. CE1301P1 – Disease of Addiction: Internet Addiction (Part 1)

COURSE OBJECTIVE

A two-part examination of whether the Internet is a “pathological agent” and should be included as a disorder separate from other psychiatric diagnoses. **Part I** discusses Internet overuse, the distinction between addictions, compulsions and impulses, technology as a non-chemical addiction, and symptoms suggesting addiction potential of the Internet. **Part 2** discusses the prevalence and demographic profile of addicts, uniqueness of the etiology, contrary theories, and placement of the pathological Internet use within the DSM IV. (Each course – Part 1 and Part 2 – may be taken independently for credit, and there is no requirement to take both.)

COURSE MATERIAL

Defining Internet Overuse

In 1994, Dr. Kimberly S. Young, an Associate Professor of Psychology at the University of Pittsburgh, Bradford, received an urgent telephone call from a friend (Young, 1998). Between sobs, the woman told her that she was about to divorce her husband. When asked why, the woman replied, “he’s addicted to the Internet.” Having piqued her interest, Dr. Young devised a simple eight-question survey from criteria used to assess alcoholism and compulsive gambling. She posted the questionnaire on several Internet user groups on a given day in November 1994, she says, “expecting a handful of responses, and none as dramatic as her friend’s story.” (Young, 1998, p. 4) The following day she had received 40 responses from all over the world, with many claiming they were addicted to the Internet. From this simple survey, followed by her subsequent research, publications, and her presentation at the 104th annual meeting of the American Psychological Association in 1996, (Young, 1996a), there rose a social issue being pursued by dozens of researchers and writers from that time to present day. Several authors have attempted to apply meaningful and accurate definitions to this phenomenon. In this paper, the relevant theory and research will be reviewed, first to develop as good an understanding of this issue as possible. Second, to chronicle the diverse ways of approaching the issue, the writers and researchers in the field have struggled with. Finally, an attempt, based on the literature, will be made to determine if placement of Internet overuse as a legitimate disorder is justified, and (if so) what kind of disorder it should be considered.

Several attempts have been made to name to appropriately title Internet overuse. These attempts are chronicled as follows.

Internet Addiction Disorder

The term “Internet Addictive Disorder,” (IAD) was coined by a New York psychiatrist by the name of Ivan Goldberg in 1996. (Griffiths, 1999; Kandell, 1998; Wang, 2001) He posted a set of criteria on an online message board for a professional web page as a joke. The criteria, paralleling that of substance dependence as defined by the Diagnostic and Statistical Manual of the American Psychiatric Association, 4th edition (1994), replaced the term “Internet,” for a given substance. While Goldberg described his intention as a parody, it is noted in literature that IAD was taken seriously by some.

Pathological Internet Use

The term Pathological Internet Use (PIU) was assigned in 1996, by Kimberly Young, based on results highly suggestive of a common etiology with pathological gambling. (Young, 1998) PIU was later reinforced by Davis, (2001) who pointed out that the DSM-IV favors the term *dependence* for substances, and pathology for disorders like gambling. Young refers to



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

the *addictive* potential of the Internet, yet avoids the term as it pertains to diagnosis for the above reason.

Specific or Generalized Pathological Internet Use

Davis (2001) distinguishes two types of pathological Internet use, as to their utility. Specific Pathological Internet Use (SPIU) refers to those dependent on content specific functions of the Internet (e.g. online stock trading, auctions, sexual material). Generalized Pathological Internet Use (GPIU) is used to describe general, multi-dimensional use without a clear objective (e.g. wasting time, surfing, chatting, e-mailing). These definitions will be discussed in more detail, when exploring social-cognitive theory.

Internet Dependence and Internet Behavior Dependence

Sherer and Bost, (1997, cited by Griffiths, 1999, 2000) conducted a study of *Internet Dependence* using criteria parallel to that of substance dependence as defined in the DSM-IV. Hall and Parsons, (2001) expanded the definition of Internet Dependence to that of Internet Behavior Dependence (IBD). They placed emphasis on the affects of the Internet on cognitive, behavioral, and affective functioning. They do not endorse a pathological etiology to the problem, but rather, a compensation mechanism for other areas in the person's life.

For the purposes of simplicity and to avoid getting lost in terms used to define excessive Internet use, the term "Internet addiction" will be applied to the subject phenomenon in this paper. There will be justifications for and against the use of the term addiction mentioned in the citations. The term Internet addiction will be used during review of literature for the purpose of uniformity.

Understanding Addictions and Compulsions

Definition of Addictions vs. Compulsions vs. Impulses

Many psychologists are of the opinion that the term *addiction* should be reserved for physical substances known to create dependency. (Griffiths, 2000; Holden, 1997; Young, 1999) The term *addiction* is not used in the clinical criteria or diagnostic terminology in the DSM-IV. (Griffiths, 1999; Kandell, 1998; Wang, 2001; Young, 1996a; Young and Rodgers, 1998b) The terms *dependency and abuse* are used to describe degrees of pathology in use of chemical substances. (DSM-IV, 1994) Compulsions, as defined by the DSM-IV, (1994) are repetitive behaviors or mental acts, the goal of which is to reduce anxiety or stress, not to provide pleasure or gratification. Marks, (1990, p. 1391) points out that "behavioral addictions are often called compulsions to denote coercion from a discomfort that has to be allayed, whereas addiction more implies attraction towards something." Marks describes the accepted definition of compulsion as a *push* toward relieving discomfort, while addiction as a *pull* toward a good feeling. He makes a case that push and pull occur simultaneously with both chemical and behavioral examples, (e.g. alcohol, sex) thereby lending evidence to no differentiation in the terms addiction or compulsion.

Impulse-Control Disorders, are considered by the DSM-IV, (1994) as an inability or failure to resist an impulse, drive, or temptation to perform an act that is harmful to the person or others. For most of these disorders, the user feels an increasing sense of tension or arousal before committing the act and then experiences pleasure, gratification, or relief afterward. The DSM-IV, (1994) notes such similarities to chemical substances but with clear distinction that the terms dependence and abuse are reserved for a drug, medication, or toxin. Beard and Wolf, (2001) make a viable argument that Internet use as well as other non-chemical behaviors are separate from chemically induced problems that may be entitled addiction, because of lack of such symptoms as physical withdrawal. They prefer the terms "problematic" or "maladaptive" as most appropriate to describe Internet overuse.



The Existence of Non-chemical Addictions

In the last two decades, psychologists and addiction counselors have begun to acknowledge that people can form addictions to more than physical substances. They point to common *addictive behavior* in such habits as compulsive gambling, chronic overeating, sexual compulsions, and obsessive television watching. (Marks, 1990; Young, 1998) Young, (1998, p. 17) takes the position that “in behavior-oriented addictions, those who get hooked are addicted to what they *do* and the *feelings* they experience when they’re doing it.” Also according to Young recent findings in science suggest that there is a possibility of experiencing habit-forming chemical reactions to non-chemical as well as chemical substances. Researchers point to the presence of dopamine release (the pleasure neurotransmitter) in the nucleus accumbens during non-chemically induced excitement, producing the same effect as alcohol and other drugs. (Bai, 2000; Mitchell, 2000; Young, 1998) “And when something makes our dopamine level rise, we naturally want more of it.” (Young, 1998, p. 220) “Today among a small but growing body of research, the term addiction has extended into the psychiatric lexicon that identifies problematic Internet use associated with significant social, psychological, and occupational impairment.” (Young, 1997, p. 2)

Technology as a Non-chemical Addiction

General Theory About the Addictiveness of Technologies

Each significant technological development fundamentally changes the way the world works,...just as the invention of the electric light bulb enabled a multitude of nocturnal activities to occur,...the world-wide web has spawned a revolution in communication, commerce and behavior. (Kandell, 1998) Technological addictions as a subset of a broader category of non-chemical addictions involve human-machine interaction, and can be either passive (e.g. television) or active (e.g. computer games). (Griffiths, 1999) Since movies in the 1929's, radio in the 1930's, and television in the 1940's and 1950's, such technologies have been criticized as affecting time management and behavior. (Stern, 1999) Television, according to Stern is evidenced to cause “parasocial” relationships with the characters on the television, being used to both combat and enhance loneliness. A total of nearly 9 years of an average American’s life is spent viewing television. (Grohol, 1999) Technology according to Stern, (1999) provides a highly effective medium by which maladaptive behaviors can be carried out (by breaking down social boundaries), not the technological agent serving as the addiction itself. The addictiveness of technologies may be contributed to by the reinforcing features such as the sound effects and features that may promote addictive tendencies. (Griffiths, 1999)

Kraut, et al., (1998) identify that most empirical work has indicated that television watching reduces social involvement, physical activity, mental health, and promotes boredom, and unhappiness. They identify *time displacement* (time not spent socially engaged) as the major causal factor of negative effects. Lonely people they report, watch television more than others. Young, (1998) and Young and Rodgers, (1998b) point out the fad associated with the Citizen’s Band (CB) Radio as a similar technological fascination (and potentially addictive agent) as the Internet (in terms of such qualities as interactiveness and anonymity).

Capacity of the Internet to Express Maladaptive Behaviors

The rapidity and convenience of the Internet has opened up an entirely new set of doors for people looking for resources and fulfillment. As in so many other things, what man can create to do good things, he can use in equally negative fashions. Often, this negativity comes from not the phenomenon itself, but from an immoderate frequency and volume of its use. Such functions of the Internet that have the capacity to be misused in this way are listed in the following paragraphs.



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

"Pornography" is the most frequently searched for topic on the Internet...with the Internet pornography industry expected to reach \$366 million to \$1 billion in 2001. (Greenfield, 1999; Griffiths, 2001) Griffiths reports estimates that one in five excessive Internet users are engaged in some form of online sexual activity. Nearly 20 percent of the Internet users surveyed by Pratarelli, et al., (1999) used the Internet to become sexually aroused.

A variety of pornography related activities may be realized via the Internet. Persons may seek out sexually related material (e.g. pornography websites), buy or sell sexually related goods, order from virtual sex shops, (find) sex therapists, escorts, prostitutes, swingers, and other types of material for masturbatory purposes (such as the heads of famous people superimposed on someone else's body). (Griffiths, 2000, 2001) "Cyber-pornography" is legal, readily available in one's own home or office, inexpensive (unlike prostitutes or phone sex), safe from physical harm or venereal diseases, and is ideal for hiding an activity from a partner. (Griffiths, 2001)

Cyber-relationships or *Cyber-affairs*, involve individuals married or unmarried forming on-line love relationships which may or may not evolve into real-life affairs. (Young, 1997) The user may carry on as many of these affairs as desired in relative safety, and at the same time without leaving the house or office. According to Griffiths, (2001) innocent chat room affiliations can turn into a passionate cyber-affair, evolving into intense mutual erotic dialogue (cyber-sex) with text-based fantasies. Masturbation, he notes may often accompany the fantasies. Accelerated intimacy, (Greenfield, 1999) as explained later in terms of reinforcers unique to the Internet, refers to the unnatural rapidity with which persons seem to develop these relationships. For disenfranchised groups such as homosexuals, the Internet may be a tremendous advantage. (Griffiths, 2001) Three types of online relationships are conducted: those in which people never meet, those developing online but with a desire to meet in real life, and those where people meet in real life but maintain a relationship online. (Griffiths, 2001)

Cyber-stalking may be described in terms of such behaviors as online sexual harassment and pedophilic grooming. (Griffiths, 2000) According to Griffiths, the first may include such behaviors as sending someone unsolicited pornographic or hateful material (from individuals or groups), or giving someone's e-mail address out to others involved in (bizarre behavior) web-groups to be besieged with unwanted contacts. The second, refers to those manipulating others with deception about themselves, often with the ultimate purpose setting up real life meetings. Young, et al., (1999) point out that the act of pedophilia does not require physical molestation, but is present when intense reoccurring sexual fantasies about children are being entertained. Young, (1988) describes such grooming tactics used by pedophiles as pretending to be another child, or pretending to be a caring adult friend unlike the way they perceive their parents. An organization entitled the "CyberAngels," a branch of the Guardian Angels organization, (an unofficial policing organization) was set up in 1995 to help protect victims of cyber-stalking. (Griffiths, 2000)

Gambling may be found on the Internet, chiefly in the form of online stock trading and auctions. According to Pratarelli, et al., (1999) 4 percent of the Internet users in their study reported using the Internet for gambling. Online stock trading and online auctions such as eBay, according to authors, Orzack and Young, are gambling behaviors providing the user with a sense of accomplishment, power, and excitement. (Networker@USC, 1999)

Multi-user dungeons, or *multi-user domains*, (MUDS) involve games where players take on roles...ranging on themes from space battles to medieval duels. (Young, 1997) MUDS, are places where a user under a character name, fights monsters, saves maidens, buys weapons...and can be social in the same fashion as a chat room, but typically always in character. (Young, 1997) MUDS, according to the consensus of writers on the subject, represent one of the two most problematic (addictive) uses of the Internet, for reasons of depersonalization into their fictional characters and fictional world.



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

Chat Rooms (and various types of news sharing groups) are identified by writers and researchers as the other of the two most addictive of activities on the Internet. (Griffiths, 2000; Young, 1998) A chat room is a place where anyone online can access, to carry on conversations with others in “the room.” Chat rooms are available 24 hours a day, 7 days a week. A savvy chat room user can be carrying on multiple conversations at once, and may develop relationships of any variety and depth.

Shopping for virtually any types of products may be accomplished through the Internet. Convenience is of course the most attractive aspect of on-line buying. As differentiated from auctions or stock trading, (gambling for cost on items) there has been little concern by authors and researchers as to addiction to Internet shopping, except in cases where persons already have an addiction to shopping. (Griffiths, 2000; Pratarelli, et al., 2002)

Information Surfing is a relatively benign activity, where the user is looking for resources, or finding out things of interest. This may include researching a topic as not only condoned but also encouraged by educational institutions. (Griffiths, 2000; Kandell, 1998; Young, 1998) Information surfing is generally accepted by all writers on the subject of the Internet to be not only mildly or non-addictive, but healthy.

Symptoms to Suggest Addiction Potential of the Internet

The Degree to Which the Internet Meets Core Components of an Addiction

Authors such as Walters, (1996, as cited by Young, 1996b) Young, (1996b, 1998) and Griffiths, (2000) have made a case for the criteria associated with all pathological addictions as the measure by which the behavior should or shouldn't qualify as addictive. Griffiths, (2000) identified a required presence of: preoccupation with the addictive agent (salience), mood modification, tolerance, withdrawal, conflict, and relapse. Additional criteria of progression, denial, and continued use despite consequences were added by Young. These and other authors, through research and relation to social/addiction theory have made attempts to qualify use of the Internet as meeting these required criteria.

Salience occurs when an agent becomes perhaps the most important activity in the person's life, causing a preoccupation with the activity. Restructuring time and other activities, are common salient traits cited by authors such as Young, (1998) and Griffiths, (2000). Fabian, et al., (2001) found 92 percent of their respondents who met Internet addiction criteria felt the world was a dull, empty place without the Internet, and 77 percent reported daytime fantasies about the Internet. Greenfield, (1999) found 83 percent of Internet users experiencing salience.

Mood Modification refers to the previously mentioned euphoria or excitement induced when dopamine is released in the nucleus accumbens (pleasure center) of the brain. Persons may include such reasons for accessing the Internet as a “buzz,” “high,” “tranquilizing,” “escaping,” or “numbing” effect. (Griffiths, 2000)

Tolerance is the process by which increasing amounts are required to achieve the former mood altering effects. (Griffiths, 2000) Young, (1996a) found that those meeting criteria as Internet addicted, (modified from that of pathological gambling) used the Internet nearly 8 times more than non-addicts, and 10 times more than average use before familiarity with the online skills. Brenner, (1997) found 55 percent of Internet users to have been told they spend too much time on the Internet. This phenomenon may be likened to tolerance levels which develop among alcoholics who gradually increase their consumption of alcohol in order to achieve the desired effect. (Young, 1996a) Tolerance levels in Internet use, according to Young, may be also seen by fear of missing out on something, driving users to marathon-length Internet sessions. Tolerance was found in 58 percent of Greenfield's, (1999) survey respondents.

Withdrawal involves unpleasant feeling states, and/or physical effects that occur when the mood-modifying agent is discontinued or suddenly reduced. (Griffiths, 2000) Studies by



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

Seeman, et al., (cited in Mitchell, 2000) and Bai, et al., (2000) found subjects who met criteria for Internet addiction exhibited typical withdrawal symptoms of nervousness, agitation, and aggression when not online. Fabian, et al., (2001) found 82 percent of their subjects who met criteria for Internet addiction, to report a great urge to be online if disconnected, and 81 percent to become very nervous if the Internet connection was slow. Withdrawal was also noticed by Brenner, (1997) who found 28 percent of his Internet users to find it hard to stop thinking of the Internet if they weren't logged on.

Conflict is a common factor associated with addictions, whereby others, or the user himself is under increased stress from use of the agent (family, job, social life, interests, etc.). (Griffiths, 2000) Fabian, et al., (2001) found 43 percent of their subjects to feel depressive mood and guilty after a long use of the web. 71 percent of those subjects reported aggressive behavior if interrupted by others while on the web. Young, (1996a) found that those determined Internet addicted, had moderate/severe scores in areas of conflict, to include: academic 40%/58%, relationships 45%/53%, financial 38%/52%, occupational 34%/51%, and physical 10%/0%.

Relapse, as defined by Griffiths, (2000) involves reversions to earlier patterns after a period of abstinence. An explanation provided by Hirschman, (1992) defines relapse as one or more failed attempts to stop consumption, (of an addictive agent) often failing because the underlying emotional problems helping to perpetuate the addiction have not been remedied. Young, (1996a) found that 46 percent of the persons considered Internet addicted, had made unsuccessful attempts to cut down the time they spent online to avoid negative consequences. Brenner, (1997) found 22 percent of his respondents had tried to cut down their Internet use but were unable. Greenfield, (1999) reports 68 percent of respondents reporting relapse, with 79 percent feeling restless when trying to cut back.

Progression, serves as a criterion of addiction, whereas the person may begin use with "softer" agents, and find he or she is later taking more risky, dangerous, addictive agents (e. g. a drug user begins with milder drugs like tobacco and continually progresses to more highly addictive drugs like heroin). Young's study, (1996a) produced interesting results that may be likened to a progressive nature in the Internet. She found that Internet addicts used the more benign functions of information protocols, like www-websites and email less, as Internet use increased, while the more personal and interactive functions (news groups, MUDS, and chat rooms) became much more highly used by those addicted. Results for non-addicted users were exactly opposite.

Denial of a problem represents a subconscious feeling of stability and self control, despite external, observable cues that a problem exists. Young, (1998, 1999) describes Internet denial as including such beliefs as "no one can be addicted to a machine," or "this is part of my job." Further, she says, the user may be convinced that "this is just a hobby, and besides, everyone is using it today." Young, (1999) points out that professional therapists may exacerbate denial by not taking seriously a person's problem with excessive Internet use.

Consequences, and Continued Use Despite Consequences, represent a final addiction criterion. Kimberly S. Young's, (1996a, 1998) original survey respondents, had reported that they were staying online for up to 10, or more hours at a time, day after day despite the problems the habit was causing in their families, their relationships, their work life, and their school work. They were found to crave their next date with the Internet, and unable to stop or even control their online usage despite divorces (53 percent reporting serious relationship problems [Young, et al., 1999b]) lost jobs, or poor grades. Kraut, et al., (1998) found the ties developed in Internet associations to be "weak," organized around specific topics, and not like one would develop around families and friends.

Young, et al., (1999) pointed out tendencies of hiding and lying behavior about Internet use to delay consequences. Using her criteria for Internet addiction, Young, (1998) found that



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

those meeting criteria for Internet addiction spent an average of 37 hours on the Internet each week, despite such effects as: serious and continuous fatigue resulting from staying up on the Internet until early morning hours, having to take caffeine pills to facilitate longer Internet sessions. Other problems in life areas included, physical effects such as carpal tunnel syndrome, back strain, and eyestrain. (Young, 1997, 1999). Brenner, (1997) found Internet users averaging 19 hours per week on the Internet and experiencing 10 signs of interference in role functioning to include: failure to manage time, cutting short on sleep, missing meals, job problems, and social isolation.

Comorbidity

Bai, et al., (2000) using a virtual Internet disorder clinic, found 60 percent comorbidity (two or more separate coexisting disorders) in subjects, chiefly, high incidences of anxiety, depression and substance abuse. Maressa Hecht Orzack, (Cromie, 1999; Mitchell, 2000; Orzack, n.d.; Griffiths, 2001) director of the Computer Addiction Services program associated with Harvard, states that the clinic's patients are commonly found to have at least one other problem such as depression, social phobia, impulse control disorder, and attention deficit disorder, while other patients have been diagnosed with substance abuse or other addictive disorders. A few, she finds to have bipolar disorder, or are prone to suicidal or violent outbreaks. Seemann, et al., (cited in Mitchell, 2000) adds schizoid personality disorder to the list of comorbid disorders among Internet addicts.

Young, (1998) found through her research, that some form of *escape* usually lies at the "heart and soul" of the drive toward Internet addiction. Kandell, (1998) described this phenomenon as escape, procrastination and self-medication. Young, (1998) found many of these people to be depressed and lonely, held back by low self-esteem, insecurity, and anxiety. Some were battling diseases like cancer, or living with a permanent disability. Young, (1998) found that 54 percent of those who met her criteria for Internet addiction had a prior (to Internet use) history of depression, 34 percent anxiety disorders, and others had chronically low self esteem. Several were in professional treatment and/or on medication. Furthermore, 52 percent had current or prior problems with alcoholism, drug dependency, compulsive gambling, or chronic overeating. Young, (1998) hypothesized that people who use the Internet as a temporary reprieve from anxiety and depression, find it a more attractive and socially acceptable anesthetic agent than those stigmatized like drugs. Researchers have found addictive use of the Internet to not only result from depression, but in fact to contribute to higher levels of depression. Research in the addictions field has utilized the Beck Depression Inventory (BDI) to identify high levels of depression often associated with alcoholism, drug addiction, and compulsive gambling. (Young and Rodgers, 1998a) Young and Rodgers, (1998a) studied the relationship between persons determined as Internet addicts (utilizing the criteria for pathological gambling amended to apply to Internet use) and co-existing clinical depression. Applying the Beck Depression Scale, Sixteen Personality Factor Inventory and Zuckerman's Sensation Seeking Scale-Form-V to survey responses, results indicated those meeting the criteria as Internet addicts had moderate to severe levels of depression compared to the normal population. They warned that results do not clearly indicate whether the depression was prior to, or a result of, excessive Internet use.

Kraut, et al., (1998) conducted a study sponsored by Carnegie Mellon University, entitled "Homenet," (Harmon, 1998; Kraut, et al., 1998; The Homenet Project, n.d.) in which random families involving 169 people in 73 households were given Internet access and studied over a 2-year period. They found a statistically significant relationship between Internet use and the development of depression, loneliness, decline in family interaction, and social isolation following its continued use; thereby supporting a *causal* explanation of the Internet to pathology. Praterelli, et al., (1999) utilizing a factor analysis approach, found the problem to be



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

cyclical in nature; loneliness and depression leading to excessive computer use, leading in turn to more loneliness and depression, and so on.

Relatedness to Social-Cognitive Theory

Human development requires *identity formation* (Kandell, 1998) which consists of one's personality, knowing one's likes and dislikes, social and subgroup identification, and a vocational path. Disruption in these areas may act as fertile ground for the pursuit of addictive agents as coping mechanisms, and as a means of escape and emotional numbing. (Hirschman, 1992; Kandell, 1998) Developing meaningful relationships or *intimacy*, (Kandell, 1998) comprises a second area where failure to develop adequately can lead to loneliness and unfulfilled longings for partnership. The Internet, Kandell says, especially through the socially interactive modes, (chat rooms, e-mail, MUD games) provides for these unfulfilled developmental intimacy needs. He warns that such relationships may be distorted via the nature of the Internet medium, making attempts to bond in real life more frustrating. Albert Bandura's social learning theory suggested that low self efficacy and poor coping skills elicited risk of developing addictions to cope. (cited in Armstrong, et al., 2000; Larose, et al., 2001)

As the result of this under-developed identity and intimacy, Hirschman, (1992) viewed persons susceptible to addiction falling into two subtypes: *distressed* and *sociopathic*. Distressed types, exercise an external locus of control...fueled by feelings of self-doubt, incompetence, and personal inadequacy...resulting in being easily influenced by environmental factors (addictions). Sociopathic types had above average sensation-seeking tendencies with needs for immediate sensory gratification. In either case says Hirschmann, the addictive agent is used to create and maintain a stable sense of self, and without it a sense of loss of identity.

Larose, et al., (2001) compared (social cognitive) measures of self-efficacy and self-disparagement in Internet use behavior of a sample of college students. They found 60 percent of the variance in a multiple regression analysis as a social cognitive explanation of excessive Internet use. Weitzman, (2000) found a significant moderate relationship between what she called "differentiation of self" and Maladaptive Internet use. Respondents in her study reporting themselves Internet addicted, also reported historic family functioning problems.

Wang, (2001) applied Erikson's psychosocial development model of psychosocial maturity and self-efficacy to the development of Internet addiction. He did not find a causal linkage between low emotional development and Internet addiction, but did confirm there was a dependency group which was comprised of longer Internet users. Young (1998, p.72) identified some Internet users (especially found in MUDS) as having found a medium in which to express "buried emotions awakened on-line." She cites case studies of persons with neglect/abuse in their background taking out rage toward other people through killing, destroying, etc., fictional game characters and other users.

Davis, (2001) presents a model that cognitive distortions, (irrational thoughts) may explain pathological Internet use. He views maladaptive ruminative thoughts about the self (e.g. the Internet is the only place worth living in, or the only place I am respected and worthy) as preceding the affective or behavioral symptoms, not vice-versa. His model portends that Specific Pathological Internet Use, (SPIU) is likely the result of a pre-existing pathology such as gambling or pornography. In this case, the Internet serves as a most convenient medium for the behavior. It is the Generalized Pathological Internet Use, (GPIU) that Davis sees as most dangerous in our society. GPIU involves wasting time, procrastinating real activities, and is more likely to cause the psychosocial problems with depression and detachment to family, jobs, and the social milieu.



BIBLIOGRAPHY AND SUGGESTED ADDITIONAL RESOURCES

- ❑ American Psychiatric Association. (1994). *Diagnostic and Statistical Manual of Mental Disorders*. (4th ed.) Washington, DC: Author.
- ❑ Armstrong, L., Phillips, J. G., & Saling, L. L. (2000). Potential determinants of heavier internet use. *International Journal of Human-Computer Studies*, 53(4), 537-550.
- ❑ Bai, Y. M., Lin, C. C., & Chen, J. Y. (2001). Internet addiction disorder among clients of a virtual clinic. *Psychiatric Services*, 52(10), 1397.
- ❑ Beard, K. W. (2002). Internet addiction: Current status and implications for employees. *Journal of Employment Counseling*, 39(1), 2-11.
- ❑ Beard, K. W., & Wolf, E. M. (2001). Modification in the proposed diagnostic criteria for internet addiction. *Cyberpsychology & Behavior*, 4(3), 377-383.
- ❑ Brenner, V. (1997). Psychology of computer use: XLVII. Parameters of internet use, abuse and addiction: The first 90 days of the internet usage survey. *Psychological Reports*, 80, 879-882.
- ❑ Cooper, A. (1997). The internet and sexuality: into the next millennium. *Journal of Sex Education Therapy*, 22(1), 5-6.
- ❑ Cooper, A., Scherer, C. R., Gordon, B. L., & Boies, S. C. (1999). Sexuality on the internet: From sexual exploration to pathological expression. *Professional Psychology: Research and Practice*, 30(2), 154-164.
- ❑ Cooper, A., & Sportolari, L. (1997). Romance in cyberspace: Understanding online attraction. *Journal of Sex Education and Therapy*, 22(1), 7-13.
- ❑ Cromie, W. J. (1999). Computer addiction is coming on-line. *The Harvard University Gazette*, Online document: <http://www.news.harvard.edu/gazette/1999/01.21/computer.html>. Retrieved October 18, 2002, from source.
- ❑ Davis, R. A. (2001). A cognitive-behavioral model of pathological Internet use. Online document: <http://www.internetaddiction.ca/pathologicalinternetuse.htm>. Retrieved October 25, 2002, from source.
- ❑ Greenfield, D. N. (1999). Psychological characteristics of compulsive internet use: A preliminary analysis. *Cyberpsychology & Behavior*, 2(5), 403-412.
- ❑ Griffiths, M. (1999). Internet addiction: Fact or fiction? *The Psychologist*, 12(5), 246-250.
- ❑ Griffiths, M. (2000). Excessive internet use: implications for sexual behavior. *Cyberpsychology & Behavior*, 3(4), 537-552.
- ❑ Griffiths, M. (2001). Sex on the internet: Observations and implications for internet sex addiction. *The Journal of Sex Research*, 38(4), 333-342.
- ❑ Grohol, J. M. (2000). Too much time online: Internet addiction or healthy social interactions? *Cyberpsychology & Behavior*, 2(5), 395-401.
- ❑ Hall, A. S., & Parsons, J. (2001). Internet addiction: College student case study using best practices in cognitive behavior therapy. *Journal of Mental Health Counseling*, 23, 312-327.
- ❑ Hansen, S. (2002). Excessive internet usage or 'internet addiction'? The implications of diagnostic categories for student users. *Journal of Computer Assisted Learning*, 18(2), 232-236.
- ❑ Harmon, A. (1998, August 30). Researchers find sad, lonely world in cyberspace. *The New York Times on the Web*, Online document: <http://www.nytimes.com/library/tech/98/08/biztech/articles/30depression.html>. Retrieved October 4, 2002, from source.
- ❑ Hirschman, E. C. (1992). The consciousness of addiction: Toward a general theory of compulsive consumption. *Journal of Consumer Research*, 19, 155-178.
- ❑ Holden, C. (1977). Web of addiction. *Science*, 275, 1073.
- ❑ Kandell, J. J. (1998). Internet addiction on campus: The vulnerability of college students. *Cyberpsychology & Behavior*, 1(1), 11-17.



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

- ❑ Kraut, R., Lundmark, V., Patterson, M., Kiesler, S., Mukopadhyay, T., & Scherlis, W. (1998). Internet paradox: A social technology that reduces social involvement and psychological well-being? *American Psychologist*, 53(9), 1017-1031. Online document: <http://www.apa.org/journals/amp/amp5391017.html>. Retrieved October 18, 2002, from source.
- ❑ Larose, R., Mastro, D., & Eastin, M. (2001). Understanding internet usage: A social-cognitive approach to uses and gratifications. *Social Science Computer Review*, 19(4), 395-413.
- ❑ Marks, I. (1990). Behavioural (non-chemical) addictions. *British Journal of Addictions*, 85, 1389-1394.
- ❑ Mitchell, P. (2000). Internet addiction: Genuine diagnosis or not? *The Lancet*, 355, 632.
- ❑ Networker@USC. (1999, Sept./Oct.). eBay virus? Auction fun can turn to auction fever. 10(1), Online document: http://www.use.edu/isd/publications/networker/99-00/v10n1-sept_oct_99/sidebar-ebayla... Retrieved October 4, 2002, from source.
- ❑ Oreilly, M. (1996). Internet addiction: A new disorder enters the medical lexicon. *Canadian Medical Association Journal*, 154, 1882-1883.
- ❑ Orzack, M. H. (n.d.). Computer addiction services: Maressa Hecht Orzack, Ph.D. Online document: <http://www.computeraddiction.com>. Retrieved October 18, 2002, from source.
- ❑ Pratarelli, M. E., & Browne, B. L. (2002). Confirmatory factor analysis of internet use and addiction. *Cyberpsychology & Behavior*, 5(1), 53-64.
- ❑ Pratarelli, M. E., Browne, B. L., & Johnson, K. (1999). The bits and bytes of computer/internet addiction: A factor analysis approach. *Behavior Research Methods, Instruments, & Computers*, 31(2), 305-314.
- ❑ Seaman, D. (1998, October 12). Hooked online. *Time.com*, 152(15),
- ❑ Online document: http://www.time.com/time/magazine/1998/dom/981012/time_select_quarterly_b3a.html. Retrieved October 4, 2002, from source.
- ❑ Stern, S. E. (1999). Addiction to technologies: A social psychological perspective of internet addiction. *Cyberpsychology & Behavior*, 2(5), 419-424.
- ❑ The Homenet Project. (n.d.). Online document: <http://homenet.hcii.cs.cmu.edu/progress>. Retrieved October 4, 2002, from source.
- ❑ Truer, T., Fabian, Z., & Furedi, J. (2001). Internet addiction associated with features of impulse control disorder: Is it a real psychiatric disorder? *Journal of Affective Disorders*, 66(2-3), 283.
- ❑ Wang, W. (2001). Internet dependency and psychosocial maturity among college students. *International Journal of Human-Computer Studies*, 55(6), 919-938.
- ❑ Weitzman, G. D. (2000). Family and individual functioning and computer/internet addiction. *Dissertation Abstracts International*, Online document: <http://newfirstsearch.oclc.org/webz/fspage?pagename=record:pagetyp...> Retrieved September 8, 2002, from source.
- ❑ Young, K. S. (n.d.). Surfing not Studying: Dealing with internet addiction on campus. Online document: http://www.netaddiction.com/articles/surfing_not_studying.htm. Retrieved October 4, 2002, from source.
- ❑ Young, K. S. (1996a). Internet addiction: the emergence of a new clinical disorder. Online document: <http://www.netaddiction.com/articles/newdisorder.htm>. Retrieved October 4, 2002, from source.
- ❑ Young, K. S. (1996b). Psychology of computer use: XL. Addictive use of the internet: A case that breaks the stereotype. *Psychological Reports*, 79, 899-902.
- ❑ Young, K. S. (1997). What makes the internet addictive: Potential explanations for Pathological internet use. Online document: <http://www.netaddiction.com/articles/habitforming.htm>. Retrieved October 4, 2002, from source.



- ❑ Young, K. S. (1998). Caught in the net: How to recognize the signs of internet addiction and a winning strategy for recovery. New York, NY: John Wiley & Sons, Inc.
- ❑ Young, K. S. (1999). Internet addiction: Symptoms, evaluation, and treatment. Online document: <http://www.netaddiction.com/articles/symptoms.htm>. Retrieved October 4, 2002, from source.
- ❑ Young, K. S., O'Mara, J., & Buchanan, J. (1999b). Cybersex and infidelity online: Implications for evaluation and treatment. Online document: <http://netaddiction.com/articles/cyberaffairs.htm>. Retrieved October 4, 2002, from source.
- ❑ Young, K. S., Pistner, M., O'Mara, J., & Buchanan, J. (1999a). Cyber-disorders: The mental health concern for the new millennium. Online document: <http://www.netaddiction.com/articles/cyberdisorders.htm>. Retrieved October 4, 2002, from source.
- ❑ Young, K. S., & Rodgers, R. C. (1998a). The relationship between depression and pathological internet use. *Cyberpsychology & Behavior*, 1(1), 25-28.
- ❑ Young, K. S., & Rodgers, R. C. (1998b). Internet addiction: Personality traits associated with its development. Online document: http://www.netaddiction.com/articles/personality_correlates.htm. Retrieved October 4, 2002, from source.

ACKNOWLEDGEMENTS

This course material was prepared by Steven C. VanGelder, who is currently a candidate for the Doctor of Addictive Disorders (Dr.AD) Degree from Breining Institute. Mr. VanGelder is a Licensed Professional Counselor, Licensed Marriage and Family Therapist, and is a Certified Addictions Counselor in Virginia. Breining Institute has edited the original material for the purpose of presentation in this course.



CONTINUING EDUCATION (CE) EXAMINATION QUESTIONS
Course No. CE1301P1 – Disease of Addiction: Internet Addiction (Part 1)

You are encouraged to refer to the Course Material when answering these questions. Choose the best answer based upon the information contained within the Course Material. Answers which are not consistent with the information provided within the Course Material will be marked incorrect. A score of 70% correct answers is required to receive Continuing Education credit. GOOD LUCK!

QUESTIONS

1. Which of the following is the correct term for the acronym “PIU” coined by Kimberly Young in 1996, based on results highly suggestive of a common etiology with pathological gambling?
 - a. Primary Internet Utilization.
 - b. Primary Internet Use.
 - c. Pathological Internet Use.
 - d. Pathological Internet Utilization.

2. When Hall and Parsons expanded the definition of Internet Dependence to that of Internet Behavior Dependence (IBD), they placed emphasis on the affects of the Internet on which of the following:
 - a. Cognitive functioning.
 - b. Behavioral functioning.
 - c. Affective functioning.
 - d. All of the above.

3. Marks points out that “behavioral addictions are often called compulsions” to denote which of the following:
 - a. Coercion from a discomfort that has to be allayed.
 - b. Attraction towards something.
 - c. Both A and B above.
 - d. Neither A nor B.

4. Psychologists and addiction counselors point to common *addictive behavior* in such habits as compulsive gambling, chronic overeating, sexual compulsions, and obsessive television watching, and suggest that in behavior-oriented addictions:
 - a. Those who get hooked are addicted to what they **do**.
 - b. Those who get hooked are addicted to the **feelings** they experience when they’re doing it.
 - c. Both A and B above,
 - d. Neither A nor B.

5. Some authors have made a case for the criteria associated with all pathological addictions as the measure by which the behavior should or shouldn’t qualify as addictive. Griffiths identified a required presence of six criteria, including all of the following except:
 - a. Preoccupation with the addictive agent (salience).
 - b. Mood modification.
 - c. Conflict.
 - d. Denial.



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

6. Additional criteria (to those identified in the previous question) which were added by Young include which of the following:
 - a. Progression.
 - b. Denial.
 - c. Continued use despite consequences.
 - d. All of the above.

7. *Salience* occurs:
 - a. When the euphoria or excitement induced dopamine is released in the nucleus accumbens of the brain.
 - b. When an agent becomes perhaps the most important activity in the person's life, causing a preoccupation with the activity.
 - c. When increasing amounts of the activity are required to achieve the former mood-altering effects.
 - d. None of the above.

8. *Mood modification* occurs:
 - a. When the euphoria or excitement induced dopamine is released in the nucleus accumbens of the brain.
 - b. When an agent becomes perhaps the most important activity in the person's life, causing a preoccupation with the activity.
 - c. When increasing amounts of the activity are required to achieve the former mood-altering effects.
 - d. None of the above.

9. *Tolerance* occurs:
 - a. When the euphoria or excitement induced dopamine is released in the nucleus accumbens of the brain.
 - b. When an agent becomes perhaps the most important activity in the person's life, causing a preoccupation with the activity.
 - c. When increasing amounts of the activity are required to achieve the former mood-altering effects.
 - d. None of the above.

10. Young (1998) found through her research, that some form of *escape* usually lies at the "heart and soul" of the drive toward Internet addiction. Kandell (1998) described this phenomenon as all of the following except:
 - a. Escape.
 - b. Anonymity.
 - c. Procrastination.
 - d. Self-medication.

This is a ten-question examination. Answer Questions 1 through 10 for full CE credit in this course. Questions 11 through 21 have been omitted.



Breining Institute
COLLEGE FOR THE ADVANCED STUDY OF ADDICTIVE DISORDERS

CONTINUING EDUCATION (CE) ANSWER SHEET

SECTION 1. Please type or print your information clearly. This information is required for CE Course credit.

First Name																								
Middle Name																								
Last Name																								
Address (Number, Street, Apt or Suite No.)																								
City																								
State (or Province)															USA Zip Code									
Country (other than USA)															Country Code									
Primary Telephone Number (including Area Code)										Facsimile Number (including Area Code)														
E-mail Address																								

SECTION 2. Credit Card Payment Information (if paying by credit card): Circle type of card: **VISA** or **MasterCard**

Credit Card Number															Expiration Date									
Full Name on Credit Card																								

Authorized Signature **Breining Institute is authorized to charge Twenty-nine dollars (\$29.00) to this card.**

- SECTION 3.**
 Course Title: Course No. CE1301P1 – Disease of Addiction: Internet Addiction (Part 1)
 Answers (circle correct answer):
- | | | |
|------------|-------------|-------------|
| 1. A B C D | 8. A B C D | 15. A B C D |
| 2. A B C D | 9. A B C D | 16. A B C D |
| 3. A B C D | 10. A B C D | 17. A B C D |
| 4. A B C D | 11. A B C D | 18. A B C D |
| 5. A B C D | 12. A B C D | 19. A B C D |
| 6. A B C D | 13. A B C D | 20. A B C D |
| 7. A B C D | 14. A B C D | 21. A B C D |

Signature: _____ Date: _____

Return Answer Sheet, with \$29 Continuing Education examination fee, by mail or facsimile to:
BREINING INSTITUTE · 8880 Greenback Lane · Orangevale, California USA 95662-4019 · Facsimile (916) 987-8823